shale, in which numerous erect trees, probably Sigillariæ, are seen on the face of the cliff; there are ten rows one above another, indicating, observes Mr. Lyell, repeated subsidences of the land, so as to allow of the growth of ten successive forests!*

The stems of the Sigillariæ vary in size from a few inches to five feet in diameter; and in length from five to sixty feet. They gradually taper from the base to the summit. A specimen surveyed by M. Brongniart was forty feet long, one foot in diameter at the base, and but six inches at the top, where it divided into two equal branches. The stems of Sigillariæ may be readily distinguished from those of other trees with which they are associated, by the fluted surface produced by the deep longitudinal grooves, and the regularly disposed imprints between the channels.† The carbonized bark, in large specimens, is often an inch thick, but in small examples it is a mere pellicle, and being extremely brittle, flakes off with the slightest touch, and leaves the inner surface exposed, the coal only remaining in the deep furrows and pits, as in *Lign.* 24, fig. 1. No traces of leaves, or fruit in connexion with the

* Mr. Lyell on the Coal Strata of Nova Scotia. Amer. Journ. Oct. 1843.

† The stems of some recent dicotyledonous trees from New Zealand, in the possession of our distinguished countryman, Dr. Robert Brown, possess similar longitudinal ribs and furrows, both on the bark and alburnum, or naked wood.